



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/718,415

11/24/2000

Mun-Hyuk Kang

P56247

1574

7590

09/08/2004

Robert E. Bushnell
Suite 300
1522 K Street, N.W.
Washington, DC 20005

EXAMINER

CHO, HONG SOL

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/718,415

Applicant(s)

KANG ET AL.

Examiner

Hong Cho

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-15 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The specification is objected to because it includes the section on the claim of foreign priority on the first page. It should be deleted.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takei et al (U.S 6002674), hereinafter referred to as Takei in view of Davison (RFC 2603).

Re claim 1, Takei discloses registering ATM addresses (column 2, line 66).

Takei discloses ATM network being in stable state when there is no change in network topology (*determining when ATM terminal is stable*, column 3, lines 60-65). Takei teaches that the shortest time interval for updating routing information is controlled by the second timer. Therefore, there will be no exchange of routing information between ATM switches within the time interval set by the second timer (*not applying PNNI protocol if the ATM terminal is not stable*, column 6, lines 2-7).

Takei discloses registering ATM addresses (column 2, line 66), but fails to teach using ILMI (Interim Local Management Interface) protocol for registering ATM address.

However, ATM address registration by employing ILMI protocol is described in UNI 3.0 and ILMI 4.0 specification by ATM Forum and well known to those skilled in the art.

Davison (RFC 2603) discloses registering ATM address by using ILMI service registry MIB. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use ILMI protocol in registering ATM address. The motivation is to get the benefit of complying with the industry standard in the areas of ATM technology.

Re claim 2, Takei discloses using two timers that prevent the routing information with PNNI routing control packets from being updated frequently (*restricting PNNI routing information being over flooded*, column 4, lines 1-6).

Re claim 4, Takei discloses updating routing information by using PNNI routing control packets when the network is in the stable state (*applying PNNI protocol when ATM terminal is stable*, column 3, lines 60-64)

Allowable Subject Matter

4. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 5-20 are allowable.

The following is an examiner's statement for reasons for allowance.

6. Claim 9 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a method of determining the stable condition of ATM terminal by measuring the difference between the current connect time and last connect time to enable PNNI protocol for updating routing information of ATM network . It is noted that the closest prior art, Takei shows a method of restricting frequent routing updates by using two timers. However, Takei fails to suggest the specific use of current and last connect time fields in a data table as required by the claimed invention to determine whether a given ATM terminal is stable or not.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- US Patent (6487168) to Hamami discloses static SVC in a connection oriented networks
 - US Patent (6563811) to Hansel et al. discloses routing decision in connection-oriented packet network
 - US Patent (6552999) to Iwase et al. discloses ATM network providing stable connection quality
 - US Patent (6212164) to Murakami et al. discloses ATM switch congestion control method of connection setup requests and priority control method for receiving connection requests

- US Patent (6724756) to Fourie et al. discloses method for introducing SVC connection call redundancy in ATM networks
 - US Patent (6212164) to Mitts et al. discloses network structure for realizing part of a wireless ATM system and method for executing inter-switch handover
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.
- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hong Cho
Patent Examiner
8-31-2004


RICKY NGO
PRIMARY EXAMINER